



RCEL 430 / 530 : Engineering Launch Pad - Pathways
CAN ENGINEERING TAKE YOU BEYOND ENGINEERING?
Exploring Career Paths for STEM Majors

Revised November 30, 2020

DAY AND TIME

Tuesdays 4:00 to 4:59 pm

INSTRUCTOR

George W. Webb III, *Adjunct Lecturer*

<http://www.rcelconnect.org/facultyandstaff/webb/>

FORMAT

Dual delivery (in-person and online)

*Students who want to attend class online
before adding the course should email
the instructor for access.*

CONTACT

A109 Abercrombie Lab

(713) 348-2704

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Office Hours: Tuesdays 2:30 to 3:30 pm

This syllabus is subject to change before and during the semester.

COURSE DESCRIPTION

RCEL 430 / 530 (“Engineering Pathways” for short) is an opportunity for students to explore career options for science and engineering majors beyond the typical technical industry and academic research tracks. Fields to be explored include law, medicine, finance, entrepreneurship, consulting, venture capital, business management, and government service. We will also look at career paths within technical industry that emphasize non-technical skills. The course includes self-assessment tools, guest speakers, exploratory research, and additional opportunities outside scheduled class time.

RCEL 430 / 530 is one credit hour and is suitable for students in any technical or quantitative major. For undergraduates, RCEL 430 fulfills the “Launch Pad” course requirement for the [Certificate in Engineering Leadership](#). For graduate students, RCEL 530 counts as elective credit.

Learning objectives

During this course students will:

- Understand the resources available for researching career opportunities.
- Use formal and informal assessment tools to identify their individual interests and skills.
- Through guest speakers, individual research, and other resources, identify and evaluate careers that reward their identified talents and skills.
- Understand the entry qualifications, preferred experience, day-to-day responsibilities, growth opportunities, and challenges in a variety of career fields.
- Gain insights from engineering graduates who are experienced in those fields.

- Synthesize knowledge gained during the course to prepare a focused summary of a selected career path.
- Prepare a resume tailored to the selected career path.
- Prepare and present a final report and action plan for achieving career objectives.

Required resources

- Rice Handshake account: see <https://ccd.rice.edu/students/jobs-internships/handshake>
- Sallyportal account: see <https://alumni.rice.edu/sallyportal>

Opportunities outside class

This course may include virtual or in-person opportunities, outside of scheduled class time, to meet with working professionals and observe them in action. While generally not mandatory, these visits are useful steps toward fulfilling the objectives of the course.

Grading

The course grade is based on the following:

5%	Career interest self-assessment
20%	Initial research report on select career path
10%	Resume development
20%	Final report and action plan
45%	Class participation

There is no exam during the final exam period.

Academic Integrity and Rice Honor Code

Students are responsible for maintaining the highest standards of honesty and integrity in their work and conduct. This course encourages students to consult other sources including working professionals in various fields, but students must be careful not to represent the work of others as their own. Students should be familiar with what constitutes plagiarism and always cite proper references of outside materials and sources. Students should abide by the honor pledge they made upon entering Rice.

Title IX

At Rice University, unlawful discrimination in any form, including sexual misconduct, is prohibited under Rice Policy on Harassment and Sexual Harassment (Policy 830) and the Student Code of Conduct. Policy 830 requires faculty and staff who receive information, directly or indirectly, regarding harassment, sexual harassment, sexual assault, dating violence, or stalking by or against a University student or employee to report the incident to AEEO or a Deputy Title IX Coordinator. While this report does not in itself constitute a formal complaint, a student or

employee who has experienced prohibited conduct may have the option of filing a formal complaint. For more information, please contact the [SAFE Office](#), visit <https://titleix.rice.edu>, or email titleixsupport@rice.edu.

Special Needs

Let us know during the first few weeks of the semester if you have disability needs and we will do what we can to accommodate these needs. Students with disabilities should contact Rice Disability Resource Center at (713) 348-5841 or <https://drc.rice.edu>

PRELIMINARY COURSE CALENDAR

(for illustration only; assignments and dates subject to change)

Due Date	Type	Topic
Mon Feb 1, 2021	Assignment	Career Interest Self-Assessment
Wed Mar 3, 2021	Assignment	Initial Research Report on Select Career Path
Tue Mar 16, 2021	“Sprinkle Day”	No class
Wed Mar 31, 2021	Assignment	Resume for Select Career Path
Fri Apr 30, 2021	Assignment	Final Report & Action Plan for Select Career Path



SCHEDULE OF GUEST SPEAKERS

Updated January 13, 2020; subject to change

Date	Topic / Career Path	Speaker	Position
Tue Jan 26	Diplomacy / International Relations	Eric Nelson ChE '83 Mark Steakley EE '85	U.S. Ambassador to Bosnia & Herzegovina Security Engineering Officer, U.S. Department of State
Tue Feb 2	Intellectual Property Litigation	Pierre Hubert EE '92	Patent Litigation Attorney, Duane Morris LLP
Tue Feb 9	Management Consulting	Richard Avant ChE '83 Kensley King ME '16 Seth Padmabandu ChE '16	Managing Director, Alvarez & Marsal Manager, Alvarez & Marsal Manager, Alvarez & Marsal
Tue Feb 16	Engineering Careers in Local Government	Alisa Max CE '91	Assistant County Engineer, Operations, Harris County
Tue Feb 23	Engineering Consulting	Tom McHugh ESE '90	Principal Toxicologist / Environmental Engineer, GSI Environmental
Tue Mar 2	Executive Leadership and Culture	Jim Whitehurst CS '89*	President, IBM
Tue Mar 9	Arts Production Management	Aubrey Sirtautas CS '14	Production Manager, West Virginia Public Theatre Professor of Stage & Production Management, West Virginia University School of Theatre & Dance
Tue Mar 16	HOLIDAY		
Tue Mar 23	Investment & Wealth Management	Tommy Huie EE '87*	Former Chief Investment Officer, U.S. Fiduciary Services
Tue Mar 30	Engineering Entrepreneurship	Larry Cison CS/EE '88	Founder & Chief Technology Officer, Northworks Automation
Tue Apr 6	Venture Capital	Rajiv Bala EE '02	Managing Director, Bala Investments
Tue Apr 13	Patent Examiner	Jason Bryan EE '00 (Vanderbilt)	Patent Examiner, U.S. Patent & Trademark Office
Tue Apr 20	Private Equity	Troy Thacker ChE '95	Managing Partner, Ara Partners
Tue Apr 27	Aerospace Medicine	Rob Mulcahy ChE '08	Flight Surgeon, NASA

*Rice Trustee

Classes meet from 4:00 to 5:00 pm